

# VEHICLE TECHNOLOGIES PROGRAM

# Ford Escape Advanced Research Fleet

Number of vehicles: 20 Date range of data received: 01/01/2012 to 11/30/2012

Reporting period: January 12 - Number of vehicle days driven: 2,790

November 12

#### All Trips Combined

Overall gasoline fuel economy (mpg)	39
Overall AC electrical energy consumption (AC Wh/mi) <sup>1</sup>	105
Overall DC electrical energy consumption (DC Wh/mi) <sup>2</sup>	72
Total number of trips	14,961
Total distance traveled (mi)	168,067

### Trips in Charge Depleting (CD) mode<sup>3</sup>

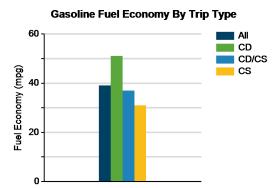
Gasoline fuel economy (mpg)	51
DC electrical energy consumption (DC Wh/mi) <sup>4</sup>	157
Number of trips	9,000
Percent of trips city   highway	81%   19%
Distance traveled (mi)	55,234
Percent of total distance traveled	33%

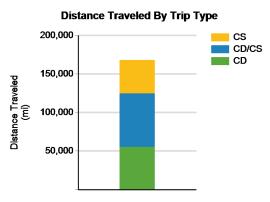
## Trips in both Charge Depleting & Charge Sustaining (CD/CS) modes<sup>5</sup>

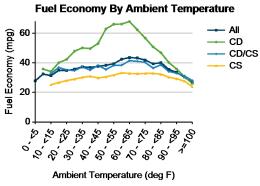
Gasoline fuel economy (mpg)	37
DC electrical energy consumption (DC Wh/mi) <sup>6</sup>	55
Number of trips	2,759
Percent of trips city   highway	37%   63%
Distance traveled (mi)	69,557
Percent of total distance traveled	41%

#### Trips in Charge Sustaining (CS) mode7

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Gasoline fuel economy (mpg)	31
Number of trips	3,201
Percent of trips city   highway	65%   35%
Distance traveled (mi)	43,276
Percent of total distance traveled	26%







Notes: 1 - 7. Please see http://avt.inl.gov/pdf/phev/fordreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

Since these vehicles are flex-fuel capable, some driving events are conducted with E-85, which may decrease fuel economy results

"The Ford Escape Advanced Research Fleet was designed as a demonstration of customer duty cycles related to plug-in electric vehicles. The vehicles used in this demonstration have not been optimized to provide the maximum potential fuel economy."

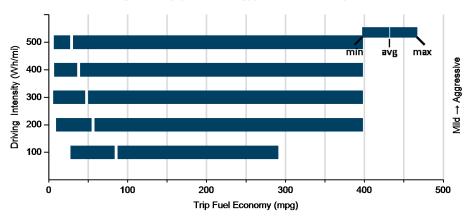


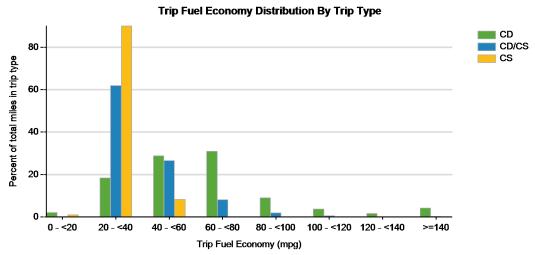
Average trip distance (mi)

Trips in Charge Depleting (CD) made	City	Highway
Trips in Charge Depleting (CD) mode	City	ingilway
Gasoline fuel economy (mpg)	44	58
DC electrical energy consumption (DC Wh/mi)	144	167
Percent of miles with internal combustion engine off	31%	10%
Average trip driving intensity (Wh/mi)	288	324
Average trip distance (mi)	3	17
Trips in Charge Depleting and Charge Sustaining (CD/CS) mode		
Gasoline fuel economy (mpg)	42	37
DC electrical energy consumption (DC Wh/mi)	73	53
Percent of miles with internal combustion engine off	28%	6%
Average trip driving intensity (Wh/mi)	289	342
Average trip distance (mi)	9	35
Trips in Charge Sustaining (CS) mode		
Gasoline fuel economy (mpg)	30	31
Percent of miles with internal combustion engine off	24%	4%
Average trip driving intensity (Wh/mi)	285	338

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# Effect Of Driving Intensity (Wheel Energy) on Fuel Economy This Month



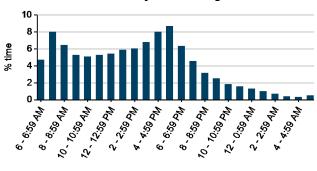




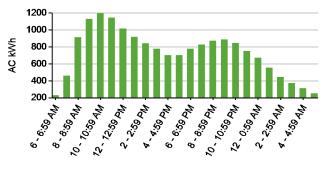
# Plug-in charging

Average number of charging events per vehicle per month when driven	31	
Average number of charging events per vehicle per day when driven	2.1	
Average distance driven between charging events (mi)	28.6	
Average number of trips between charging events	2.5	
Average time plugged in per charging event (hr)	6.3	
Average time charging per charging event (hr)	2.2	
Average energy per charging event (AC kWh)	3.0	
Average charging energy per vehicle per month (AC kWh)	93.1	
Total number of charging events	5,886	
Total charging energy (AC kWh)	17,691	





# **Time of Day When Charging**



## Time of Day When Plugging In

